



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/174,042	10/16/1998	JURGEN HIRATH	1997P10413 US	5077

46726 7590 04/16/2007  
BSH HOME APPLIANCES CORPORATION  
INTELLECTUAL PROPERTY DEPARTMENT  
100 BOSCH BOULEVARD  
NEW BERN, NC 28562

EXAMINER
----------

WILKENS, JANET MARIE

ART UNIT	PAPER NUMBER
----------	--------------

3637

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/16/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/174,042	HIRATH ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Janet M. Wilkens	3637	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 January 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12, 15-19, 21-24 and 31-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 15-19, 21-24 and 31-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 34 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Namely, nowhere in the specification, as originally filed, is it stated that the circular weld seam is not formed using solder.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 35 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. For claim 35, "said two other covering layers" lacks antecedent basis.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10, 15-19, 21-23 and 31-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al (4,444,821) in view of Schmidberger (German reference 1, 004,207) and Hord, Jr (3,771,816). Young teaches a heat insulated wall (see Fig. 3) comprising: a connecting profile (20), an evacuable heat insulating material (30) and two outer metal/aluminum covering layers (10a,b). First for claims 1, 18 and 33, Young fails to teach a tube/stub with flatten outer flanges on the ends thereof between the outer covering layers of the wall. Schmidberger teaches a refrigerator (Fig. 1) having a tube (30) with integral flatten outer flanges located between its outer covering layers (12,10). Welds are located between the flanges and layers. The tube, along with openings in the layers, provide a conduit for wires, for a light, etc. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the wall of Young by adding a tube between its outer layers, as well as corresponding openings in the walls thereof, such as is taught by Schmidberger, for the advantages stated above. Furthermore, it would have been obvious to construct the tube's flanges so that they would compensate for positional imprecisions between the apertures and the tube and permit the tube center to be offset from the apertures' centers a distance up to about 20 percent of the aperture diameter while maintaining a seal there between, so to maintain the vacuum within the wall. Note: it should be understood that the Schmidberger reference is being used only for its specific conduit teaching, other features of the Schmidberger refrigerator not forming a part of the combination. Second for claims 1, 18 and 33, Young in view of Schmidberger fails to teach that the tube flanges are attached to the layers via a circular weld. Hord teaches the use of a

Art Unit: 3637

circular weld (12) around a flange of a tubular member (6)/wall (4). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the layer/flange attachment of Young in view of Schmidberger by using a circular weld, such as is taught by Hord, there around instead of the spot welds presently used, since these attachments are functionally equivalent. The circular weld of Hord would additionally provide a continuous seal around the flanges and between the tube and layers, helping to keep the vacuum within the wall. Note: for claims 32 and 34, product by process limitations, e.g. "beam welding process" and "not formed using solder", are given no weight in a claim. Furthermore, the subject matter of claim 34 is a negative limitation.

For claims 8-10, 22 and 23, Young in view of Schmidberger and Hord fails to specifically teach that the layers and tube are made out of corrosion-protected steel. The examiner takes Official notice that corrosion-protected steel is well known in the art. Therefore, it would have been an obvious design consideration to one of ordinary skill in the art at the time of the invention to modify the layers and tube of Young in view of Schmidberger and Hord by making the layers and tube out of any of a number of different materials, including corrosion-protected steel, depending on the desired need of the person constructing the layers/tube, e.g. depending on certain properties desired/required for the layers/tube, depending on the materials readily available, depending on economic considerations, etc.

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al (4,444,821) in view of Schmidberger (German reference 1, 004,207)

and Hord, Jr (3,771,816) as applied to claims 1-10, 15-19, 21-23 and 31-35 above, and further in view of Buchser (4,715,512). As stated above, Young in view of Schmidberger and Hord teaches the limitations stated above, including a tube with flanges inside a vacuum insulated wall. For claims 11 and 12, Young in view of Schmidberger and Hord fails to specifically teach that the layers and tube flanges have different thicknesses, i.e. the flange thickness being twice that of the layers. Buchser teaches tube flanges (21,25) which are twice as thick as the layers (11,12) to which they are attached (see Fig. 3). It would have been an obvious design consideration to one of ordinary skill in the art at the time of the invention to have the thicknesses of the layers and flanges different, such as is taught by Buchser, for strength purposes, reinforcement purposes (making area around openings stronger), etc.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al (4,444,821) in view of Schmidberger (German reference 1, 004,207) and Hord, Jr (3,771,816) as applied to claims 1-10, 15-19, 21-23 and 31-35 above, and further in view of Horvay (3,006,158). As stated above, Young in view of Schmidberger and Hord teaches the limitations stated above, including a vacuum insulated wall. For claim 24, Young in view of Schmidberger and Hord fails to teach a connection stub attached to an outer portion of one of the layers. Horvay teaches a connection stub (34) attached to an outer portion of one of the layers of an insulation wall via a flange. The stub allows for water drainage. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the wall of Young in view of Schmidberger and Hord by adding a connection stub between its outer layers, as well as corresponding openings in

the walls thereof, such as is taught by Horvay, for the advantage stated above.

Furthermore, it would have been obvious to connect the stub flange and outer portion of one of the layers using welds for a vacuum-tight seal there between. This type of connection between members is well known in the art (see disclosed specification second paragraph pages 1-2).

Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al (4,444,821) in view of Schmidberger (German reference 1, 004,207) and Hord, Jr (3,771,816) as applied to claims 1-10, 15-19, 21-23 and 31-35 above, and further in view of Stresau (1,933,772). As stated above, Young in view of Schmidberger and Hord teaches the limitations stated above, including a tube with flanges inside a vacuum insulated wall; the tube being welded to the wall. For claim 36, Young in view of Schmidberger and Hord fails to teach that the weld is located between the edge of the flattened region and the tube section. Stresau teaches having circular welds (13) between an edge of the flattened region and its corresponding tube section (the inner section thereof) as well as at the edges of the region (8). It would have been an obvious design consideration to one of ordinary skill in the art at the time of the invention to modify the weld connection of Young in view of Schmidberger and Hord by adding a weld between the layers and regions, to provide a further seal there between.

### ***Response to Arguments***

Applicant's arguments filed January 29, 2007 have been fully considered but they are not persuasive.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). Also, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In this case, it is contended that the modifications made to the panel of Young would have been obvious to one having ordinary skill in the art. The features added being well known as shown by Schmidberger and Hord adding versatility, with the tube, and an airtight feature, with the circular weld. As stated above in the art rejections, to first add a tube between the outer layers of the panel of Young, such as is taught by Schmidberger, would provide a conduit for wires, for a light, etc through the panel. Second, it would have been obvious to modify the layer/flange attachment of Young in view of Schmidberger by using a circular weld, such as is taught by Hord, there around instead of the spot welds



presently used, since these attachments are functionally equivalent. The circular weld of Hord would additionally provide a continuous seal around the flanges and between the tube and layers, helping to keep the vacuum within the wall. Note: Hord is simply being used for its circular weld feature and Schmidberger for its specific conduit teaching.

As for Schmidberger's refrigerator and parts thereof being made of plastic. As stated above, the Schmidberger reference is being used only for its specific conduit teaching, other features of the Schmidberger refrigerator not forming a part of the combination. Therefore, even though Schmidberger's refrigerator teaches away from using metal for its walls and therefore other features, this reference does teach the advantage of using a tube within an insulated wall, e.g. to provide a conduit for wires, for a light, etc. It is this teaching that is being applied in the art rejection. Furthermore, since the wall of Young is made of metal, it would then have been obvious to make a tube used therein the same material. Also, the vacuum tight seal would occur when the flanges of Schmidberger are welded, via circular weld, to the layers of Young. Finally, an inherent advantage of having flanges of a tube as connecting members is that variations in such things such as aperture diameters can be easily compensated for using the length of the flanges for covering various sizes of openings.

In response to applicant's argument that Hord is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention.

See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Hord is simply being used for its circular weld feature. This feature being a known alternative to the spot welding used by Schmidberger.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

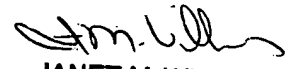
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janet M. Wilkens whose telephone number is (571) 272-6869. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on (571) 272-6867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3637

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wilkins  
April 12, 2007

  
JANET M. WILKENS  
PRIMARY EXAMINER  
Art. 3637